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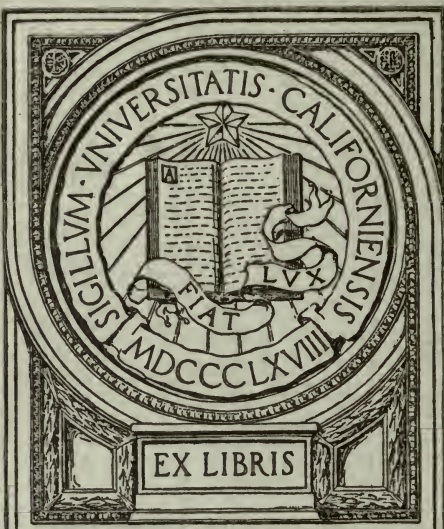

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From the Author

THE WORK OF THE UNIVERSITY IN AMERICA.

BY

WILLIAM PRESTON JOHNSTON, LL. D.

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COLUMBIA, S. C.
TED AT THE PRESBYTERIAN PUBLISHING HOUSE.
1884.

THE WORK OF THE UNIVERSITY IN AMERICA.

AN ADDRESS

BEFORE THE SOUTH CAROLINA COLLEGE ON COMMENCEMENT DAY,

JUNE 25TH, 1884,

BY

WILLIAM PRESTON JOHNSTON, LL. D.,

PRESIDENT OF TULANE UNIVERSITY.

COLUMBIA, S. C.

PRINTED AT THE PRESBYTERIAN PUBLISHING HOUSE

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ADDRESS.

Mr. President, Gentlemen of the Board of Trustees and of the Faculty, and Fellow-citizens:

When your kind invitation came to me to make your annual address, I confess I felt the compliment very deeply. I regard it as a very signal honor to be called, at this time, to perform this duty. Yours is no ordinary history, and, in view of what your past requires of you, it would be impossible not to construe this trust, for so I regard it, as a mark of great respect from so self-respecting and thoughtful a people. So soon, too, after your reorganization, weighty problems, requiring the nicest judgment for correct solution, are pressing upon you; and it is but reasonable to suppose that at such time, no vain rhetorical pageant—the lay figures and wax-works of thought—would suffice; but that you expect some solid contribution to the available fund of educational philosophy or practical methods. All this made your request a very flattering one, but it imposes a responsibility well-nigh appalling to a man so occupied and so unambitious as myself.

My effort in life is, when I speak, to say some useful word, and when I act to do some useful thing. But, on these public occasions, paradox, so alluring to some minds and so titillating to the fancy of many, is almost demanded of the speaker, and common sense is too apt to be regarded as mere common-place. Nevertheless, it cannot be that judicious words, even without the graces of manner or diction, can ever come amiss to a people so thoughtful (as I have already said), as the people of South Carolina; and, in speaking to you to-day, I know I am addressing the heart and brain of South Carolina. I will go therefore, I said, to this ancient and honorable people with the thoughts and ideas my mind has shaped in regard to education, not for their instruction, but as suggestive merely; and, with their minds all wide awake and intent on such matters, they will sift out whatever is of practical value to them. I beg you, therefore, gentlemen, to accept what I have to say in the spirit in which it is offered.

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Before I enter, however, on the substance of my remarks, you will pardon a reference to one personal aspect of my mental attitude toward you, which it is not to be presumed was in your thoughts when you asked me to come, and which will evince my entire sympathy with you, and that in South Carolina I am more ready to stand as a learner than as a teacher.

I was born and brought up in Kentucky in a Whig family, when that gifted orator and leader, Henry Clay, was the idol of the State. It was as hard then to be a Democrat in Kentucky as it was to be a Whig in South Carolina. Nevertheless, from the hour that I first turned a serious attention to political affairs (and I was then very young), and learned that the Constitution of the United States had a history, through which alone it could be understood, I gravitated toward the State Rights construction of that instrument. In a word, I became a States Rights Democrat of the straitest sect of the Pharisees: what was known as a South Carolina Democrat—a John C. Calhoun Democrat. I think we may now take an honest pride in our adhesion to this political faith; for if it has been the occasion of much misfortune to us, it has been the cause of greater glory; since truth is nobler than power, and virtue than success. However calamitous it has been financially and politically, it has been to us intellectually and morally a very sheet anchor, holding fast to honest methods of interpretation from which no gust of popular favor or storm of passion could drift us.

But I have not forgotten the deluge, and how much it has drowned. Only we may remember that our ark is on Ararat now, and the dove of peace, with olive branch in beak, is on the wing; and in the cloud the sevenfold bow of hope bends over us all, as a token of the covenant that there shall be no more a flood to destroy the earth. Let me drop here, however, once and for all, political allusion, which I merely touched in passing, to let you know that I am one of the elect, and hence entitled to be heard without prejudice.

Our past is past. We may not, we cannot, we should not, forget this past. Not here in South Carolina, certainly. So full of inspiration, so noble, pure, and patriotic, so germinal in ex-

alted possibilities, it were a crime to forget it. I know our duty to history, and I have tried in a small, but faithful, way, to perform my share of the labor; but we owe a duty to the present also. Ah! that present is always, before it can be grasped, a past! To seize it, to employ it, to make it fruitful, we must behold and shape it in the future. We speak of the spirit of the age, the genius of the century, but each decade has a character, a dominating principle, almost as clearly defined. In 1860, we were on the volcano; in 1870, in the abyss. Out of the depths, in the day of our trouble, we made our cry unto the Lord, who was our helper and deliverer. In 1880, the lava scars of the eruption are clothed with verdure, and the ashes of defeat are yielding the corn and oil and wine. We must do this decade's work. Let us address ourselves to the task.

The first and greatest and most important duty before us, after our daily bread-winning, is the education of our youth. It is all of this not only for its effects on future generations, but on ourselves. For the moment a whole people can rise to the joyful conviction that it is better to live for others than for themselves, at that instant they have achieved the highest plane of national character. To sow that others may reap, to plant that others may pluck the fruit, to build that others may have shelter, to endure toil and sacrifices that others may enjoy the reward, this is a real and a vital Christianity, which will lift up the man, or community, or commonwealth, or nation, which acts upon it, to the loftiest heights of moral achievement.

But it is not necessary to point out our own immediate advantage, to ensure your coöperation. Do good and fail not, this is a sufficient motive. Happily, man and society are so constituted that motives, interests, progress are intermingled, not isolated; flowing like time, not differentiated like the seconds on a clock; and hence, social life, like individual life, has its conscious personal identity. We cannot separate ourselves from the future of the commonwealth, if we would. The man who can really utter in his heart the sentiment, "After us, the deluge," is a monster. But, fortunately, I shall not be obliged to-day to argue in favor of the blessings of education. If I am not misinformed,

there is a spirit aroused in South Carolina which is resolved that these blessings shall fill her borders, and that all shall be lifted up by their amazing power. The friends of education everywhere, the believers in a better time coming, have taken heart at your attitude. The selection of your present Governor is regarded as something more than a compliment to the cause of education. It is more than an augury, more than an earnest of your profound interest in the cause of human enlightenment. As a noble representative of public education, his call to the highest place in your gift is justly considered a guaranty of your purpose to put South Carolina on the highest plane of intellectual progress.

The question may be regarded as settled that the people of this State are to be educated. The next practical question is, how shall this be done? But before attempting to decide it, we will consider what is meant by the term education, and what are its objects. In its broadest sense education embraces every formative influence which affects a human being. Professor Masson says: "The business of education, in its widest sense, is coextensive with a man's life; it begins with the first moment of life and ends with the last, and it goes on in every combination of place, company, and circumstance in which a man may voluntarily station himself, or into which he may be casually thrust." He then points to the school of the family, and the various schools of the locality, of travel, of books, of friendship, all of which help to make a man what he is.

John Lalor, in his Prize Essay, says of education: "It is, in its largest sense, a process which extends from the commencement to the termination of existence." Paley says: "Education, in its most extensive sense, may comprehend every preparation that is made in our youth for the sequel of our lives." This idea has been formulated in a hundred varying modes by as many writers. Richter, in his Levana, philosophizes thus: "The spirit of the nation and the age decides, and is at once the schoolmaster and the school; for it seizes on the pupil to form him with two vigorous hands and powers: with the living lesson of action, and with its unalterable unity." The lesson of action is through example.

The unalterable unity of the spirit of the age and nation is a generalization to express that tendency which is a resultant of every individual and social force at work. Buckle subsequently demonstrated that such unity is a fact by exhibiting some of its phenomena in his illustrations of the equilibrium of statistics.

This broad, I might say universal, view of education is mentioned, because, by the most illogical reasoning, all the vast functions and compulsory influence of this world-education are popularly attributed to the work of a school or college. I am willing neither to admit, nor to claim, so much for the influence of the school desk or lecture room. These are powerful in the sense that they are germinal; but, in their direct bearings, how small a part they necessarily play in the life of a man. Suppose a boy to be in school six hours a day, five days in the week, for five school years of, say, thirty-two weeks. This is equivalent to just two hundred whole days of twenty-four hours each. In the first twenty-five years of his life, if he spends two hours a day at his meals, as he ought, the table would claim just fourfold as much of his time as the school, and it is easy to multiply these illustrations. Consider how small a share school life actually has in the education of the young. A child is brought from a home of ignorance, low morals, and squalor; it stays at school a few sessions, and, failing to rise above its environment, after some years falls into the pauper or criminal class. Is it just to hold the school responsible for what it has failed to accomplish in such a case? You may turn to the parable of the Sower, for an answer as to what has become of the good seed sown.

The influence of heredity and the education of the environment undoubtedly have immeasurably the largest share in moulding our destinies. The direct instruction of teachers, schools, and books, is but one, though not an inconsiderable, factor of this great problem. To me it seems that the inevitable deduction from this is that the direct school education should not attempt to supersede, or ignore, the larger education of the world, but should be carried on with direct reference to it, and as a constituent part of it; in a word, that it should be practical. It

must have relation to the age, capacity, character, surroundings, and probable career of the pupil. It must respect the law of heredity, and the limitations of the environment, past, present, and future. It should not be a forcing process, but a natural growth; not an artificial production, but a normal evolution. According to the Prussian theory, "Education is the harmonious and equable evolution of human character." And Stein says this is to be effected "by a method based on the nature of the mind; every power of the soul to be unfolded, every crude principle of life stirred up and nourished, all one-sided culture avoided, and the impulses on which the strength and worth of man rest carefully attended to." To this noble and philosophical ideal of an education, every teacher should frequently recur.

Channing tells us: "The true end of education is to unfold and direct aright our whole nature. Its office is to call forth power of every kind—power of thought, affection, will, and outward action; power to observe, to reason, to judge, to contrive; power to adopt good ends firmly, and to pursue them efficiently; power to govern ourselves and to influence others; power to gain and to spread happiness."

Great writers and thinkers have embodied these same ideas in a multiplicity of forms. They are summed up in that threefold training of body, mind, and soul, which fits a man for his station in life, and makes him a good and useful man and citizen.

In this training any possible school system must have for its principle and direct duty the instruction and intellectual development of the pupil, not because this is the highest function of education, but because it is the business of the school. This, properly directed, even without any special physical and athletic discipline, and without formal ethical or religious instruction, may, nevertheless, achieve notable, yea, wonderful, results for the health of both body and soul, as well as mind. It aids the family and the church in forming character, by clearing the vision and disciplining the faculties and will of the student. If it does well the work of disciplining and informing the mind, according to the means afforded it, it has performed its part in the great business of education.

In a narrow and practical sense, then, the business of the school in education is to develop the intellectual faculties, both subjectively and objectively, and so to train and discipline them that they may acquire, retain, and effectively employ all necessary knowledge. The school is intended to confer knowledge and the power to use it. For knowledge is to the mind what air is to the lungs, at once its motive power and the material upon which it works. If this intellectual education is carried on with due reference to moral culture and physical demands, the results will be all that the friend of humanity can ask of it in any system of social amelioration. It will effect that evolution of mind and character which produces the development of the entire man, and will aid in that complete and perfect education which is the adjustment of the free will of the creature to the plan of the Creator, and which conforms the nature of man to the divine ideal.

In the nature of things, then, any true system of education must be integral, and reach from the mother's knee to that happy day when, exultant in matured powers, the graduate leaves the university a scholar, a thinker, a worker, a man. All cannot enjoy the whole of this, but happy he who has the opportunity, talents, and will to accept the full measure of the blessing.

If education philosophically viewed is a unit, elementary, academic, and university education are but successive phases in a continuous growth. In each of them respect must be had to the nature of the human mind, and the laws which regulate its evolution. The faculties must be trained in the order of their development, and knowledge suitable to the age and capacity of the pupil must be imparted. Knowledge for use and training to use that knowledge must be kept always in view. The mind thus educated by philosophical methods rests on solid rock; otherwise it rests on nothing, and swings like a rope-ladder, ready to cast its rash climber into the perilous pit below. The child that comes up from the primary school, mentally cramped, crippled and dwarfed by artificial and unnatural methods of teaching, has the same chance to grow to the full stature of intellectual manhood that the poor little chimney-sweep of a bygone age had to recover

from the hard bondage which twisted his limbs and filled his lungs with soot. So, too, the academic student, crammed with hog wash, stretched on a mental rack, and worked in the dreary treadmill of an unmeaning routine by a stupid taskmaster; how can we expect him at the University to brace himself for those exercises in the free air of liberal thought and independent research which fit him to become an athlete in the arena of life? We cannot afford to make mistakes in the education of our children, for they are the mistakes of their lives, leaving them warped and enfeebled, and the mistakes of our own lives, involving the failure of the dearest object of our existence.

This is not the occasion for me to expand in detail the work of the teacher from the cradle to the college. As indicated, it should be at once preparation, and, so far as it goes, completion.

According to a true psychology, the earliest season of life should be devoted to the training of the powers of observation, the cultivation of the senses, and the accumulation of a vast multitude of facts, which at that age the curiosity seeks out and the memory treasures. This blind curiosity should be elevated to an intelligent love of knowledge for its own sake and for its uses among men. The memory, too, should be exalted from the drudge and slave it is too often made, feeding on husks and tending swine, to the royal and half-divine dignity assigned it in the beautiful mythology of the Greeks. By some perversity of human thought, a superficial modern pedagogy would treat the cultivation of the memory almost as an intellectual crime, holding up memory as the antipode, the adversary even, of its twin sister, reason. The daughter of Apollo, and Mother of the Muses, is treated as an intruder, alien, outcast in the realm of thought. This is absurd. In every stage of life it should be carefully nurtured and guarded. But, as it is during the plastic period of childhood that it receives its most vivid and enduring impressions and is most capable of growth and development, then must we cultivate its powers most sedulously.

This neglect, and even conscious degradation, of memory is a vice in education only equalled by a similar view of the office of the imagination. From crude or ascetic notions of its function

it has been treated as "a chartered libertine" among the intellectual faculties, to be severely checked and repressed. Some people, confounding it with the fancy, seem to regard it as a sort of ornamental appendage to the mind, intended for display merely, like the spreading glories of a peacock's tail, an Indian's war plumes, or a belle's stratagem of convoluted and furbelowed ball-room train. But the imagination is, in fact, the imaging faculty, and hence necessary in scientific inquiry as well as in poetry, and indeed in every intellectual pursuit. Scientific insight and poetic imagination are very closely allied, as has been evinced in the greatest philosophers. Sir Humphrey Davy, as a boy, was noted for his fondness for the Arabian Nights; and our own great natural philospher, Prof. Joseph Henry, revelled in fairy tales, of which in early youth he was a maker as well as a reader. As no higher testimony is possible to the value and culture of the imagination, I quote what Prof. Henry himself says on this subject: "The cultivation of the imagination should be considered an essential part of a liberal education, and this may be spread over the whole course of instruction, for like the reasoning faculties the imagination may continue to be improved until late in life."

With Davy and Henry the imagination, when turned from the world of ideas to the world of fact, from subjective forces to nature, produced the most valuable practical results.

But the imagination like the horse, so useful when obedient to its master, may, when an unmanageable steed, work ruin to the rider. Every child should be taught to distinguish its products from the truth, as not the thing itself, but its representative. Nothing is easier than to make a child grasp this conception, for it is founded in nature. The distinction is as easy to the youthful mind as that between a person and his image in a mirror. And when once the imagination is set to its proper duty of representation instead of deception, a great step has been taken in that self-consciousness which is the foundation of philosophy. Thereafter no casuistry can confuse the difference between a mental picture and a lie. And, further, when the human soul once starts forward in the search for truth, such is the innate loveli-

ness of this fundamental principle of life and action that no more will the soul cease from a constant striving toward it for ever. With the truth as our goal, our flight is ever upward.

Now, then, with the powers of observation and memory trained, with the imagination awakened and coördinated with truth, and with truth itself set before the mind as a final end, the child, the youth, the man, yea a very angel in the choir of young-eyed cherubim, would have the foundation on which to build an education for time and eternity.

Unfortunately, in practice, the pupil reaches the grade of academic instruction on a plane far lower than this exalted ideal. Too often, alas, he is brought to the intelligent and sympathetic surgery or hygiene of a real teacher, past cure, or mentally and morally maimed by bad methods. In whatsoever case he may come, such a teacher will make it his study to remedy the defects of earlier training and building upon it to widen the positive knowledge and continue the previous development.

In any proper scheme of academic and collegiate instruction, the direct or indirect aim of the master, still following the order of intellectual development and conforming to the laws of psychology, must be to train the reasoning faculties, and constrain the mind to employ them according to correct methods.

Whatever may be the studies adopted, whether the languages, mathematics, or science, this should be the principal object. Other and important ends are served in studying the classics, mathematics, philosophy, and scientific branches, but the best ground on which we can justify the time devoted to collegiate instruction is that it produces, not a man full of learning, but a man who knows how to think. In so far as it fulfils this function, it is a success; in so far as it falls short of it, it is a failure. Knowledge comes with study and intellectual development, as wealth comes with toil; as stature, growth, and health with physical exercise. It may be incidental, but it is inevitable. Those studies are proper to be pursued, in due proportion, as agencies of education, which permit no faculty to lie fallow, but produce a thinker able to employ all his powers most effectively in their appointed work.

When, under intelligent tutelage and guidance, such a one has reached the point where he has acquired adequate information and discipline to meet the exigencies of an ordinary business or professional career, academic and collegiate instruction should cease. He may then go forth into the world, the battle field of life, to answer its various demands. But if, as happens to the elect, his soul is set on a higher culture, if he would know and be and do the best of which he is capable, one step yet remains. He must rise nearer to the source of intellectual light, by emancipation from service to any master, except the truth. The most vigorous natures rise to this as the eagle soars toward the empyrean by its own unaided powers of flight. But as even the callow wing of the eaglet is aided by the older bird, so the contact of youthful genius with the practised powers of strong thinkers, helps it in its upward career.

The University, with its corps of earnest, elevated, learned men, pursuing and imparting knowledge in the spirit of a sound philosophy, through scientific methods, is the final field in which the young athlete tests his powers to endure and achieve. Here education ceases to be instruction and becomes inspiration. The wise professor no longer dictates, he leads. He encourages a prudent scepticism which puts to the test each of his own utterances; of every formula he says: "Try it in the alembic of reason, whether it be pure gold or sounding brass." He says: "Be free, think, decide, and hold fast to the truth as you yourself find it."

As Helmholtz says: "In Germany the Universities are unmistakably the institutions which exert the most powerful attraction on the taught. But it is clear that this attraction depends on the teacher's hope that he will not only find in the University a body of pupils enthusiastic and accustomed to work, but such also as devote themselves to the formation of an independent conviction. It is only with such students that the intelligence of the teacher bears any further fruit."

Again the same distinguished scientist, speaking of the German attitude toward free conviction, says: "An opinion which was not based upon independent conviction, appeared to them of

no value. In their hearts they never lost faith that freedom alone could cure the errors of freedom, and a riper knowledge the error of what is unripe." This indeed is but another formula for the earlier and more familiar one of Thomas Jefferson.

This, in my opinion, constitutes the true distinction between Collegiate and University education. The former is training, the latter emancipation and liberty. It is the difference between the hour of drill and the day of battle. The professor in his Collegiate capacity magisterially marks defects, measures untried powers by accuracy in details, and plays the fugleman to his recruits. In the University, as on the eve of combat, he no more says: "Dress a little to the right. Eyes right. Front." He looks to achievement only. He cries out, "Forward; come with me. Fight, conquer."

Real mastery at the University, on this stricken field of free thought, means mastery in life. The victor here, who goes forth in the full fruition of his powers, cannot fail. He is already free in thought and soul, and his further business is to gather the spoils of his victory for the service of humanity; and so no longer the slave of self and circumstance, he is superior to fortune and the master of his own destiny.

I have thus at some length given my view of the unity of education and the consecutiveness of its parts. I have attempted to define strongly the distinction between Academic (or, so called, collegiate) education and University education. But in these matters we should not be governed by names. Any cross-roads seminary may be baptized University, and strut like an old-fashioned militia general, with epaulettes and plumes, the peacock of the parade. But such are valued at their real worth. Not for them the storm and stress of Armageddon, but to others, the Lees and Stonewalls of the strife. On the other hand there are Colleges, let us say, Yale College, Columbia College, New York, South Carolina College, which, living in the upper air of correct scholarship and liberal thought, do the joint work of College and University, and yet feel an honest pride in adhering to the traditional name of College, which marks their ancient estate.

In such institutions, in all higher institutions, I hope to see

Collegiate and University work differentiated, not by the abandonment of either, but by full recognition of the radical philosophical distinction between the two functions and methods as successive phases and parts of one system. Let the Collegian be taught as such, under a discipline approved by the experience of the past, and in courses prescribed by a Faculty more competent than himself to judge of his needs. But to the University student give that freedom of election which it behooves a free man to have.

Of this freedom, Helmholtz says: "Keep it and hand it on to coming races purified and ennobled if possible. You have to maintain it by each in his place taking care that the body of German students is worthy of the confidence which has hitherto accorded such a measure of freedom. But freedom necessarily implies responsibility. It is as injurious a present for weak, as it is valuable for strong characters." This goes to the very root of the matter, and more nearly here in America than in Germany. Constrain the young, the feeble, the inexperienced, to follow those courses of study which wiser heads know is the normal and best method for their development; but allow the matured intellect to mark out its own career for higher culture.

If education has been correctly defined, and the University represents its highest phase, the question naturally arises, Where does this phase commence? In a highly organized society, the whole work of education may be regularly distributed to the Primary School, the High School, the College, and the University, with the aid of Professional, Technical, and other special schools. But in America, and especially in the South, we must do what we can, not what we would. The University is, without exception, obliged to perform the duties of the College, and generally of the High School also. There can be no objection to this, if such an institution grasp the whole problem in its entirety, and yet recognizes the essential difference between the spirit and methods of its lower and higher departments. A University may begin where its circumstances and the condition of its people require, so only that it shall not close its work without offering to its students those chartered rights to liberal

knowledge, that emancipation of thought, which is the true key-note of Academic freedom and University life. That this is not the idea of the German University, I admit. That idea involves a complete severance of the Gymnasium, or College, from the University. But forms and ideas must yield to actual conditions. And, much as it would shock a German University Professor to tell him so, I am sure that for the teacher himself it is a higher discipline to be able and compelled to teach in both the University and the College than in either alone. If a higher discipline, then a higher man is the outcome; and, though the direct results may be less obvious, the indirect evolution of all concerned should be larger.

The discussion of ideals is a pleasing and not unprofitable pastime, but it is not my purpose here to-day. It is too much the fashion of educational doctrinaires, like other visionaries, to suppose that the world and the inhabitants thereof were created for the sake of evolving a perfect University. We must learn that the University, like other social institutions, is for the benefit of the people. And unless it is created and carried on with special reference to the wants and improvement of a particular people or class, it is defective and abnormal. In a word, I take it that the South Carolina College is intended, and should be administered, for the benefit of the white youth of South Carolina. It adapts itself to the conditions in which it is placed. The welfare of its own, not of German or French students, not of California, Ohio, or even Georgia students, is its business.

It is lack of wisdom to disregard the needs and wishes, or even the prejudices of people, in offering them what we choose to think is good. It is not good for *them*, if they will in nowise accept it. The ideal University, then, according to my view, is the one most exactly adapted to the condition of the people whom it is designed to educate.

Having considered *whom* the University should teach, and *how* they should be taught, the practical question meets us quite squarely, *What* shall it teach? I have already said it must furnish the highest education. I add, it must likewise provide the broadest possible. The whole area of human knowledge is its

field. In all its expanse, there is no department which has not some value both for information and training. If we consider that the best education is that which best develops all the faculties of man, we may well believe that no region or tract of the entire sphere of knowledge should be left unvisited by the inquiring, growing mind. The intellectual life is like the upper levels of some great mountain peak, with its bracing air, its rocky shadows, and its broad horizon. We may reach it by the beaten path, with guides and ropes and Alpine staff, or we may climb thither by devious and perilous ways, known only to the mountain goat and his hunter.

The recommendation of the University, as the best approach to these higher levels, is not that its ascent is the most strenuous and disciplinary, but that it is the surest, safest, speediest road to the point of destination.

Philip Gilbert Hamerton, in his delightful book, "The Intellectual Life," says: "The needs of the intellect are as various as the intellects themselves are various; and if a man has got high mental culture during his passage through life, it is of little consequence where he acquired it, or how. The school of the intellectual man is the place where he happens to be, and his teachers are the people, books, animals, plants, stones, and earth around him."

Hamerton adds some words of such exceeding truth and beauty, and which so nearly touch the vital point of higher education, that I cannot forbear quoting them: "The essence of intellectual living does not reside in extent of science or in perfection of expression, but in a constant preference for higher thoughts over lower thoughts, and this preference may be the habit of a mind which has not any very considerable amount of information. This may be very easily demonstrated by a reference to men who lived intellectually in ages when science had scarcely begun to exist, and when there was but little literature that could be of use as an aid to culture." And he cites as instances, Solomon, Aristotle, and Plato.

Again, he says: "It is not erudition that makes the intellectual man, but a sort of virtue which delights in vigorous and

beautiful thinking, just as moral virtue delights in vigorous and beautiful conduct. Intellectual living is not so much an accomplishment as a state or condition of the mind in which it seeks earnestly for the highest and purest truth. It is the continual exercise of a firmly noble choice between the larger truth and the lesser, between that which is perfectly just and that which falls a little short of justice. The ideal life would be to choose thus firmly and delicately always, yet if we often blunder and fail for want of perfect wisdom and clear light, have we not the inward assurance that our aspiration has not been all in vain, that it has brought us a little nearer to the Supreme Intellect, whose effulgence draws us whilst it dazzles?"

In the entire realm of knowledge, and of the studies which confer it, we must select those which will best train all the faculties that enable us to attain this exalted state or condition of a noble intellectual life. All the faculties are to be trained, but all of knowledge is not necessary or desirable to effect this training. The intellectual faculties are to be disciplined for action, not loaded as pack-horses of learning. They are to be educated as the ministers of a self-controlled but sovereign will. Each should receive the education suited to its office in the court of this master. It is not for the hand to perform the work of the eye, or the foot the work of the stomach. It is not the part of the reason to supply the place of the memory, or the imagination to supersede observation. Each must do its own proper duty and receive its specific education. Each faculty serves with ease in its own appointed realm, and with toil and constraint elsewhere. Hence, in each grand division of the complete sphere of knowledge, we should select those special departments in which the dominant mental faculties will find their best education. The University, then, should teach throughout the whole area of human knowledge; but, in view of the limitations of time, human infirmity, and the object to be attained, not all of it.

Ezra Cornell proclaimed the purpose of his University thus: "I would," said he, "found an institution where any person can find instruction in any study." The aspiration was grand, but impossible. It came from the heart, not the head. It was the

utterance of a philanthropist, not a philosopher; of one who knew not of the impassable barriers, the unattainable heights, the unsounded depths, the shoreless seas, of knowledge. We know, O so little, of the All-Knowledge, which like space, or infinity rather, pervades the universe. A ray of light reaches us from a distant star. That is all we are permitted to know of a toiling sun with its planetary system, each orb with its freight of material or metaphysical facts, and its possible but unrevealed circle of truth. Attainable knowledge, compared to the absolute truth, in any matter, is as an atom to infinity. We must be content with knowledge of a few things. These should be selected wisely for the general training of all our faculties and the special training of those which one will have to employ chiefly in what concerns him most nearly.

A man should be first, and most of all, a man; and hence, as I have said, *all* his faculties must be educated. But to be a man in the highest sense, he must be a thinker and a worker in some special thing. Every true man has his appointed place to fill in the grand scheme of providence. Be it little or great, he should try to fill it adequately. But to do this aright, not only must all his faculties be developed, but some of them must be specially developed. Hence all the faculties are not to be *equally* educated. In their education we must look to the end in view. The education of each man must be adapted, as far as possible, to his proposed work in life. It is plain, therefore, that no one curriculum will suit every mind. There is no panacea in education. It has been a plain instinct of common sense which has kept the youth intended for a business career, or for a life devoted to mechanical invention, away from the walls of the University. The learned pundits argued with him in vain that what was the best line of study to make a minister or lawyer was the best to make a merchant or mechanic. He knew better. All that is left us is to decide whether we will continue to restrict our work of education to those persons preparing for the professions, by courtesy called learned, or extend it to others, requiring full as much mental acumen, cultured imagination, and accuracy of intellectual method. For my own part, I say throw open the doors of the University,

and provide the exact courses of study required for those who seek to carry culture into other branches of intellectual activity. I can very well believe that an exclusive pursuit of the scholastic philosophy, or a strict regimen of philology, might unfit a mind to build a model bridge, or run a bank, or administer a vast and complicated railroad system. The men who do these things best distrust the University, and not unwisely. But it is because the University regards them as Gentiles, or, at best, as proselytes of the gate. With proper methods for the education of such men we should see not less ability and a far higher *morale* in administration and business. Wherever intellectual life performs its work, whether in absorbed contemplation of the *omphalos*, striving for Nirvana, or in the strenuous energies of industrial enterprise, the University should find a method of preparation adapted to the case.

A year or more ago I submitted to the Board of Administrators of the Tulane Educational Fund a plan of University organization, which, in the main, met their approval, and in which I practically embodied these opinions.

From this report, at the risk of repeating myself a little in thought, I make the following extract as expressing succinctly my views:

"Mathematics and the humanities are excellent educational tools, well tested in disciplinary value, and finished and improved by the experience of ages. No better course of studies has been, or probably will be devised as a basis for education in the learned professions and the highest scientific pursuits. But there are functions of the human mind not reached by these studies, and there are other branches which possess disciplinary value and informing power. While we should not yield to idle clamor and reject the former, neither can we afford to neglect those sciences which train the powers of observation and open to the inquirer the whole realm of nature.

"The true medium between narrowness and license is to avail ourselves of all that modern discussion has settled on these points. I feel that I am strictly in accord with the best lines of modern thought and methods in education when I recommend for

the instruction in the College, *parallel and equivalent courses of study, with prescribed branches*, which have been found advisable by experience elsewhere."

* * * * * *

"When I said that our work embraced the whole ground of the higher education, I had in mind not only the extent to which any particular student might carry his education in completing it, but the entire breadth of the field of human knowledge. No man can survey the realm of human knowledge, and comprehend the whole. No man can know it all. No man need know it all. The education of any man is an advance along certain lines of thought in certain areas of this wide domain. The courses of study afforded by institutions are but routes of travel, established according to their means and facilities, as railroad lines are run from point to point. Thus it is easy to see how a well conceived system would aid the wayfarer on the road to knowledge.

"For all practical purposes the realm of human knowledge may be distributed into the four following provinces:

"1. Philosophy and Letters.

"2. Philology.

"3. Mathematics.

"4. Natural Science

"The branches included in each of these divisions exercise and train a different set of intellectual faculties, the development of all of which is requisite for that robust strength of mind and character, that masterful energy of intellect and soul, which may be called scientific culture. We cannot obtain a liberal education even, without some gymnastic practice and instruction in each of these great departments. Therefore, in any and every course of instruction, each should be represented.

"We should carry on in our College equivalent courses of instruction, *each covering seven years, and all leading to the degree of Bachelor of Arts.*"

I beg leave to call attention in the foregoing to the recommendation of "*parallel and equivalent courses of study*, with prescribed branches," "*each covering seven years*, and all leading to the degree of *Bachelor of Arts.*" I also recommended that the

degree of Master of Arts should be granted for two years more, and Doctor of Philosophy for three years, of successful University study. I find that somewhat similar views are expressed by President Eliot of Harvard University, in a recent able article in the June number of the *Century* Magazine, entitled "What is a Liberal Education?" The article opens as follows:

"The general growth of knowledge and the rise of new literatures, arts, and sciences during the past two hundred and fifty years have made it necessary to define anew liberal education, and hence to enlarge the signification of the degree of Bachelor of Arts, which is the customary evidence of a liberal education. Already the meaning of this ancient degree has quietly undergone many serious modifications; it ought now to be fundamentally and openly changed.

"The course of study which terminates in the degree of Bachelor of Arts ordinarily covers from seven to ten years, of which four are spent in College and three to six at school; and this long course is, for my present purpose, to be considered as a whole. I wish to demonstrate, first, that the number of school and College studies admissible with equal weight or rank for this highly valued degree needs to be much enlarged; secondly, that among admissible subjects a considerable range of choice should be allowed from an earlier age than that at which choice is now generally permitted; and, thirdly, that the existing order of studies should be changed in important respects. The phrase, 'studies admissible with equal weight of rank,' requires some explanation. I use it to describe subjects which are taught with equal care and completeness, and are supported by the same prescriptions, and which win for their respective adherents equal admission to academic competitions, distinctions, and rewards, and equal access to the traditional goal of a liberal education, the degree of Bachelor of Arts. Coördinate studies must be on an equal footing in all respects; of two studies, if one is required and the other elective, if one is taught elaborately and fully, and the other only in its elements, if honors and scholarships may be obtained through one and not through the other, if one may be counted toward the valuable degree of Bachelor of Arts, and the

other only toward the very inferior degree of bachelor of science or bachelor of philosophy, the two studies are not coördinate—they have not the same academic weight or rank."

I am happy to have the sanction of a name so distinguished as President Eliot's to views which I have elaborated, not as tentative merely, but for practical application in the business of University organization.

In deciding what the equivalent courses of instruction should be, reference must be had to the principles just laid down by me in the quotation from my report. Around the opposing poles of knowledge, we find one hemisphere allotted to the realm of nature—the physical world; the other to the realm of thought—the metaphysical world. Lying between and within both is the realm of man. Then, enveloping the entire sphere of thought and knowledge, as the atmosphere does the globe, we find language, the expression and essential medium of thought and knowledge, without which it must cease to exist.

Words are but sounds, independent of the thought they embody; but as the manifestation of idea, they are as essential as the corporeal frame to the phenomena of the indwelling spirit. As signs defining variation in thought, we cannot disregard or neglect the subtlest shades of language. Those who contemn its study, do not understand its uses. Language must necessarily embrace a large share in the business of education. This applies primarily to our mother tongue, and the study of other languages must be chiefly with a view to the complete mastery of our own. But mastery of this medium of thought almost includes mastery of the thought itself; and hence excellence in the study of language will imply achievement in other departments of knowledge.

Man defines himself in time and space. Here we have the beginning of arithmetic and geometry. When he has settled all the abstract relations of number and form in the metaphysical as well as in the physical world, he has a complete body of mathematics. But, from the infantile grasp of number to a Newton or a La Place, what a distance—the span 'twixt earth and heaven! The foot of the ladder rests on the hard facts of consciousness, but on its topmost rounds we see the angels ascending and descending.

Nature opens another realm to human inquiry. The exploration and mapping out of this vast tract constitutes natural science. But, in its application, it may contain the germ, the stalk, the blade, or the ripened ear of a practical fact which shall modify civilization. It may begin and end in scientific symbolism—in a chemical or physical formula; or it may lead to a locomotive, a telephone, or an electric light.

But man is to himself the greatest fact in the universe. What he has thought about himself, his philosophies; what he has done, his history; what he has felt and uttered, his literature; these great provinces of expressed thought with their hundredfold subdivision of sciences and studies, must form an enduring source of inquiry to him, and must enter largely into any scheme of liberal education.

It has seemed to me, therefore, that the following branches should be included in every one of the courses recommended by me, in order that each of the four great realms of knowledge should have its due representation:

1. English (including grammar, rhetoric, literature, and elocution).
2. Mathematics.
3. Penmanship.
4. Drawing.
5. Geography.
6. Natural Science.
7. Physiology and Hygiene.
8. History.
9. Ethics.
10. Political Science.

The following studies should occupy more or less space in some one or another of the courses, to fulfil the requirements of special activities:

1. Latin.
2. Greek.
3. French.
4. German.
5. Spanish.

6. Chemistry.
7. Physics.
8. Mechanics.
9. Animal and Vegetable Anatomy and Physiology—*i. e.*, Biology.
10. Metaphysics and Logic.

These are the different factors in the problem of education; but how difficult and delicate a problem it is. Note, that all the faculties are to be trained and developed, but not equally so. The development should be adjusted to the purpose for which the faculties will be employed. Hence, in each of the courses set before the student, there must be a proper arrangement of studies, carefully and wisely ordered to meet his needs. Hamerton draws an ingenious analogy between education and cookery. He shows how a delicious dish became a nauseous mess by a sprig too much of parsley, and he adds this sound reflection:

"And so it is, I thought, with the different ingredients of knowledge which are so eagerly and indiscriminately recommended. We are told that we ought to learn this thing and that, as if every new ingredient did not affect the whole flavor of the mind. There is a sort of intellectual chemistry which is quite as marvellous as material chemistry, and a thousand times more difficult to observe. One general truth may, however, be relied upon as surely and permanently our own. It is true that everything we learn affects the whole character of the mind."

"Consider how incalculably important becomes the question of proportion in our knowledge, and how that which we are is dependent as much upon our ignorance as our science. What we call ignorance is only a smaller proportion—what we call science only a larger. The larger quantity is recommended as an unquestionable good, but the goodness of it is dependent entirely on the mental product that we want."

"All I venture to insist on is that we cannot learn any new thing without changing our whole intellectual composition as a chemical compound is changed by another ingredient; that the mere addition of knowledge may be good for us or bad for us; and that whether it will be good or bad is usually a more obscure

problem than the enthusiasm of educators will allow. That depends entirely on the work we have to do."

I regard these as wise words. Education is a work of art, with a definite end in view. If the product at which we aim is a man harmoniously developed and effective in a given calling, we must work toward this end with a given plan. Any other view is to place education—the science of sciences—among handicrafts or superstitions; to work by rule of thumb according to tradition, or to relegate it to the sphere of pseudo-science, along with alchemy and astrology. A choice must be made among studies with strict reference to the chosen pursuit in life, and this object should be kept steadily in view by regard to a due proportion in the subjects taught.

But I have certainly said enough to indicate how urgent I regard the need to be for our Universities to take in hand the matter of *what*, and *how much*, shall be studied, and *when*, as well as *how*, it shall be studied. Our function is to take our communities as we find them, and to educate them toward the best, by a sound application of philosophical principles. My view of what is the best way to effect this may differ widely from that of many others of equal or more commanding educational experience and position. But I believe I am right, both in the principles and the application of them which I have enunciated.

It is not necessary, neither is it desirable, that all Universities should work on the same plan, pursue exactly the same methods, or indeed, except in the largest sense, arrive at the same results. We wish growth, not a mechanical product, as the outcome of our educational efforts. We wish to send forth men, all aiming at the best, but each with the marks and flavor of his nationality, his community, his individuality even, preserved and emphasized.

I feel, ladies and gentlemen, that I have taken a liberty with this audience, which I should have hesitated in attempting, except in a community at once cultivated and accustomed to exact modes of thinking. I have occupied your attention with a matter somewhat abstruse, and, though of the profoundest importance to every one here, hard to present in a popular or engaging form. You must pardon me if I have presumed somewhat even upon

the well-known courtesy and culture of a South Carolina audience.

I feel deeply to-day the influence of the scene and its surroundings; the presence in which I stand, and the unseen presence of the mighty shades which stand about us. The South Carolina College is eighty years old. The babe born at its founding, who may yet live, totters, at four-score years, on the shore of the boundless ocean. His days may have been spent in beneficence and crowned with honor, but, now that the song of the grasshopper has become a burthen, he can only lament the brevity and incompleteness of his career. His labors have ended.

But how is it with this College? Your existence bears a close analogy to that of man; except that, born from the brain, like Pallas Athene, you stepped into life, girded, armed, panoplied, and ready for dominion of the mind, and for life and rank among the immortals. Cadmus plucked the teeth of the dragon Ignorance and planted them. They sprang up in serried ranks, warriors every one—from Alpha to Omega—armed for the eternal strife of letters against the hordes of night. Here they have made a citadel, an Acropolis, which, though sacked by barbarian hosts, rises again in its splendor and strength. Your toils have been great, your achievements great, your sufferings great; and in them all you have evinced the courage, the fortitude, and the dignity which became your lineage and the ancient commonwealth whose name you bear.

You have wrought great things. Statesman, warrior, sage, whoever he may be, will his deeds done in the flesh equal the achievements of this majestic institution? Think of the young minds here formed to virtue, grounded in patriotism, and stirred to the consciousness of an intellectual life and its strenuous duties. Think of the day star from on high which has risen upon numberless lives within these walls. Think how much you have done in the past to put to flight folly, bigotry, blindness of soul; how much to unify the State, to dignify it, to illustrate it, to beautify its intellectual belongings. Think of the master minds who here have sat in your councils, shedding around the lustre of wisdom and lofty thought; the accomplished Maxcy, the eloquent Preston, the profound Lieber, the colossal Thornwell. And do not

forget *him*, who alike influenced and influencing in the splendid peerage of intellect which marked a happier and grander epoch than our own, stood like some antique statue, severely true in every line to the grace and dignity of moral and intellectual integrity—the perfection of logic, the type of public and private virtue. O Calhoun! when shall another come like thee, to set a lesson of thinking and doing to this degenerate age?

But with this lofty line of achievement, do I find this institution sinking with the decrepitude of years? There are scars in front, and dint of sword on breast-plate and shield; but your tread and port bear the proud seeming of the warrior goddess of wisdom to whom I have likened you. No wrinkle is on your brow, no sign of weakness nor of age in all your stately form. A perennial bloom beams on your crest, and undying vigor nerves your frame; so that "thy youth is renewed like the eagle's." May your work go on, in the time to come, increasing in usefulness and broadening to that ideal which now fills you with energy and hope.

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